ENTC-1000

Encore Thin Client

User Manual v1.04

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FCC warning

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions:

1) This device may not cause harmful interference, and
2) this device must accept any interference received, including interference that may cause undesired operation

CE Mark warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate preventative measures.

Note

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment such modifications could void user's authority to operate this equipment.

Caution

To comply with the FCC RF exposure compliance requirements, a separation distance of at least 20cm must be maintained between the device and user

Unauthorized modification of product will void warrantee and violate FCC regulations

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Safety Instructions

The following instructions pertain to risk of fire, electric shock or bodily injury. Please read all of these instructions carefully.

1. Save these instructions for later use.
2. Follow all of the instructions and warnings marked on this product or included in this manual.
3. Do no use this system on an unstable cart, stand or table. The product may fall, causing serious damage to the product.
4. Slots and openings in the cabinet and the back have been provided for ventilation. To ensure reliable operation of this product, and to protect it from overheating, do not block or cover these openings. Don't use this product on a bed, sofa, rug or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.
5. Never push objects of any kind into the system through the cabinet openings. Objects may touch dangerous voltage points or short out parts that could result in a fire or electrical shock. Never spill liquid of any kind on this product.
6. This product should only be connected to the power adapter included with package. Manufacture assumes no responsibility on consequences if the product is connected with other power adapter.
7. Do not allow anything to rest on the power cord. Do not place this product where people can walk or trip on the cord.

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8. Unplug this product from main electrical power outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
9. Do not use this product near water.
10. To avoid generating an electric shock, be sure to plug power cord into the system before plugging into wall socket.
11. For protection of this product and other devices during a lightning storm, or when it is left unattended and unused for long periods of time, unplug the computer and other devices from the wall outlet and disconnect the cable from system. This will prevent damage to the system and other devices due to lighting and power line surges.
12. If this product does not operate normally, immediately seek authorized technical support. Do not attempt to repair or modify any part of this product. Any un-authorized repair and/or modification will potentially result in extensive damage.
13. Unplug this product from main power outlet and call for service under any of the following conditions:
    a. If the power cord or plug is damage or frayed.
    b. If the product has been exposed to rain, or water, or other liquids
    c. If the product has been dropped or the case has been damaged.
    d. If the product exhibits a distinct change in performance indicating a need for service.

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Introduction

Thank you for purchasing ENTC-1000, Encore Thin Client, a device that allows you to utilize computer resources on a terminal server and is easy to setup, use, and maintain.

This user manual will cover topic such as installation, configuration, maintenance, and trouble shooting.

We hope you enjoy your ENTC-1000.

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Package Contents

ENTC-1000

(color may vary)

Vertical Device Stand

(color may vary)

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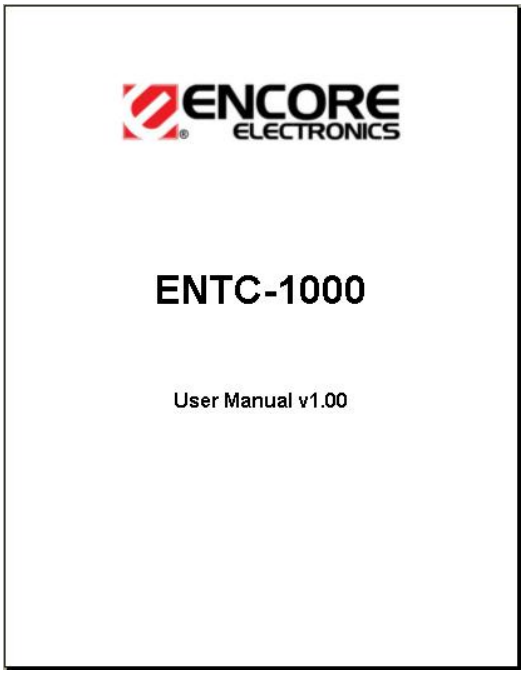
Power adapter

(Size and shape may vary)

User manual



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System Requirement

This product is not a stand-alone computer. It requires a terminal server in order to function properly. Please consult your network administrator and ask one to configure server setting correctly (see section “Network Installation”). An incorrect setting will prevent proper functionality of this device. The following is a checklist to help you determine if you have adequate network resources to use this device.

__ a local area network
    __ DHCP server
        or
    __ IP address of the gateway
    __ subnet mask
    __ IP address of the DNS server
    __ one available IP address for the device
__ a Terminal Access Server
__ a valid user account registered on the terminal server

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Installation

Network Installation

Before booting the device, you must make sure your terminal server is properly configured. Depending on the O.S. (Operating System) installed on the server, configuration steps can vary. Please refer to the following section accordingly to ensure proper configuration.

Windows 2003

(Warning: You must purchase genuine Windows user license to login to server)

Prerequisite:
Windows 2003 Server
TCP/IP Protocol
Windows Terminal Server License
Windows 2003 Server CD

Connecting the ENTC-1000 to the Windows 2003 Server network requires an add-on server called Terminal Server for Windows 2003. Please verify with Microsoft if your Windows 2003 is capable of running Terminal Server. Other Windows Servers such as Windows 2003 Web Server Edition is not bundled with Terminal Server Role.

Windows 2003 Terminal Server licensing has two types; these are “Per User” and “Per Device”. Verify with your local Microsoft Technical Support which licensing type is right for you. Other

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licensing details can be acquired through Microsoft as well. Before you install the Terminal Server Licensing, please install the Terminal Server Role to your Windows 2003 Server first.

Installation of Windows 2003 Terminal Server Role:

Note:

1. *Terminal Server installation requires an automatic reboot after the installation. Make sure that there are no users logged in and no other operations running on the server prior to the installation*
2. *Windows 2003 Server CD should be ready before installation of the Terminal Server starts*

- Login to the Windows 2003 Server as Administrator or equivalent.
- Click “START”, go to “Administrative Tools”, and then click on “Manage Your Server”. A new Wizard window will appear on the screen.

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- Click “Add or remove a role”

Manage Your Server
Manage Your Server
Server: ENCORE-SERVER
Search Help and Support Center
Managing Your Server Roles
Use the tools and information found here to add or remove roles and perform your daily administrative tasks.
Add or remove a role
Read about server roles
Read about remote administration
Your server has been configured with the following roles:
File Server
File servers provide and manage access to files.
Manage this file server
Add shared folders
Review the next steps for this role
Print Server
Print servers provide and manage access to network printers and printer drivers.
Open Printers and Faxes
Add a printer
Add a printer driver
Review the next steps for this role
Application Server
Application servers provide the core technologies required to build, deploy and operate XML Web Services, Web
Manage this application server
Tools and Updates
Administrative Tools
More Tools
Windows Update
Computer and Domain Name Information
Internet Explorer Enhanced Security Configuration
See Also
Help and Support
Microsoft TechNet
Deployment and Resource Kits
List of Common Administrative Tasks
Windows Server Communities
What's New
Strategic Technology Protection Program

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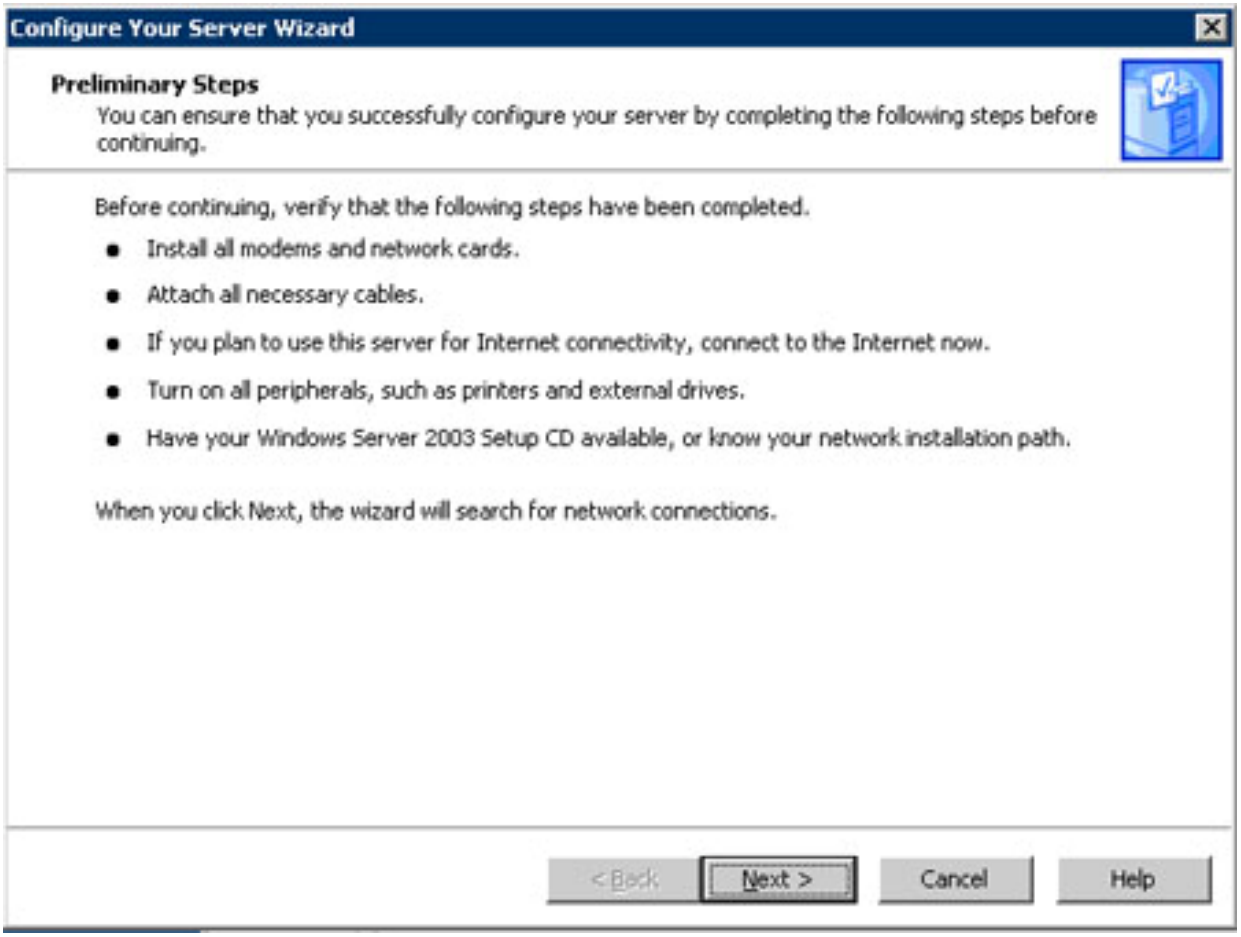
Configure Your Server Wizard
Preliminary Steps
You can ensure that you successfully configure your server by completing the following steps before continuing.
Before continuing, verify that the following steps have been completed.
Install all modems and network cards.
Attach all necessary cables.
If you plan to use this server for Internet connectivity, connect to the Internet now.
Turn on all peripherals, such as printers and external drives.
Have your Windows Server 2003 Setup CD available, or know your network installation path.
When you click Next, the wizard will search for network connections.
< Back
Next >
Cancel
Help

- A new window similar to the picture above will appear, Click the “Next” button

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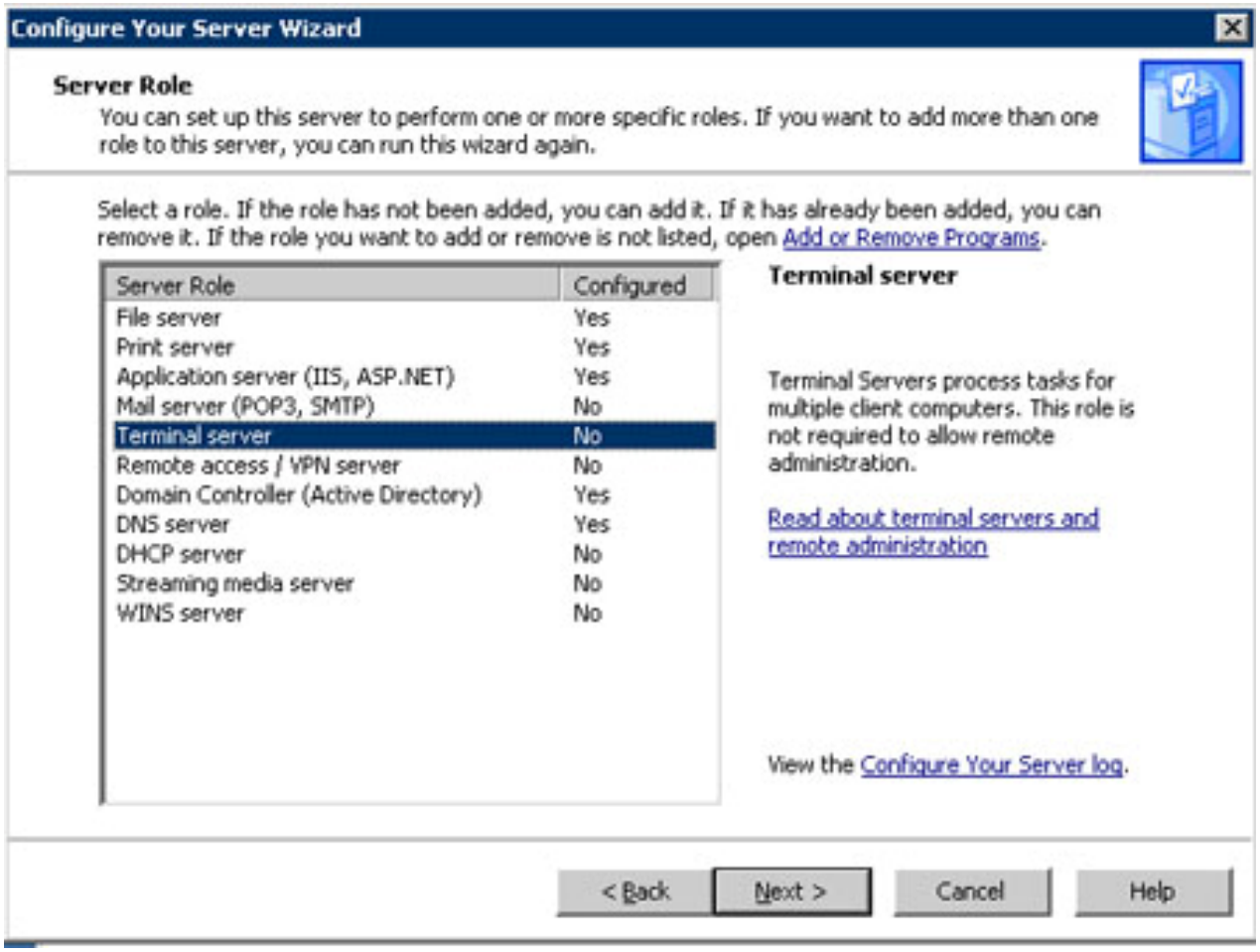
Configure Your Server Wizard
Server Role
You can set up this server to perform one or more specific roles. If you want to add more than one role to this server, you can run this wizard again.
Select a role. If the role has not been added, you can add it. If it has already been added, you can remove it. If the role you want to add or remove is not listed, open Add or Remove Programs.
Server Role
Configured
File server Yes
Print server Yes
Application server (IIS, ASP.NET) Yes
Mail server (POP3, SMTP) No
Terminal server No
Remote access / VPN server No
Domain Controller (Active Directory) Yes
DNS server Yes
DHCP server No
Streaming media server No
WINS server No
Terminal server
Terminal Servers process tasks for multiple client computers. This role is not required to allow remote administration.
Read about terminal servers and remote administration
View the Configure Your Server log.
< Back
Next >
Cancel
Help

- Click to select “Terminal Server”. Click “Next”

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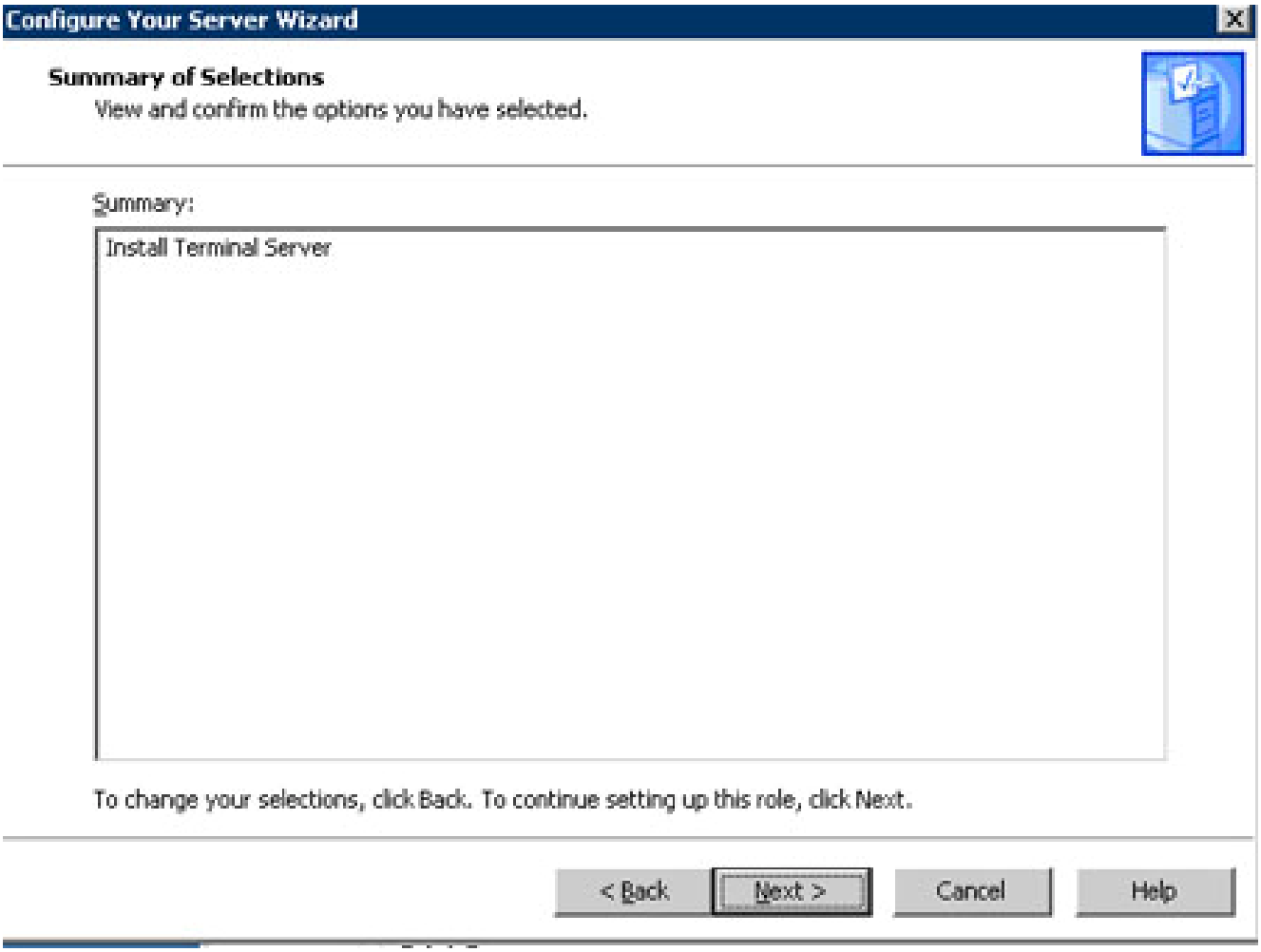
Configure Your Server Wizard
Summary of Selections
View and confirm the options you have selected.
Summary:
Install Terminal Server
To change your selections, click Back. To continue setting up this role, click Next.
< Back
Next >
Cancel
Help

- At the next window (above), click “Next” to confirm installation of the Terminal Server.

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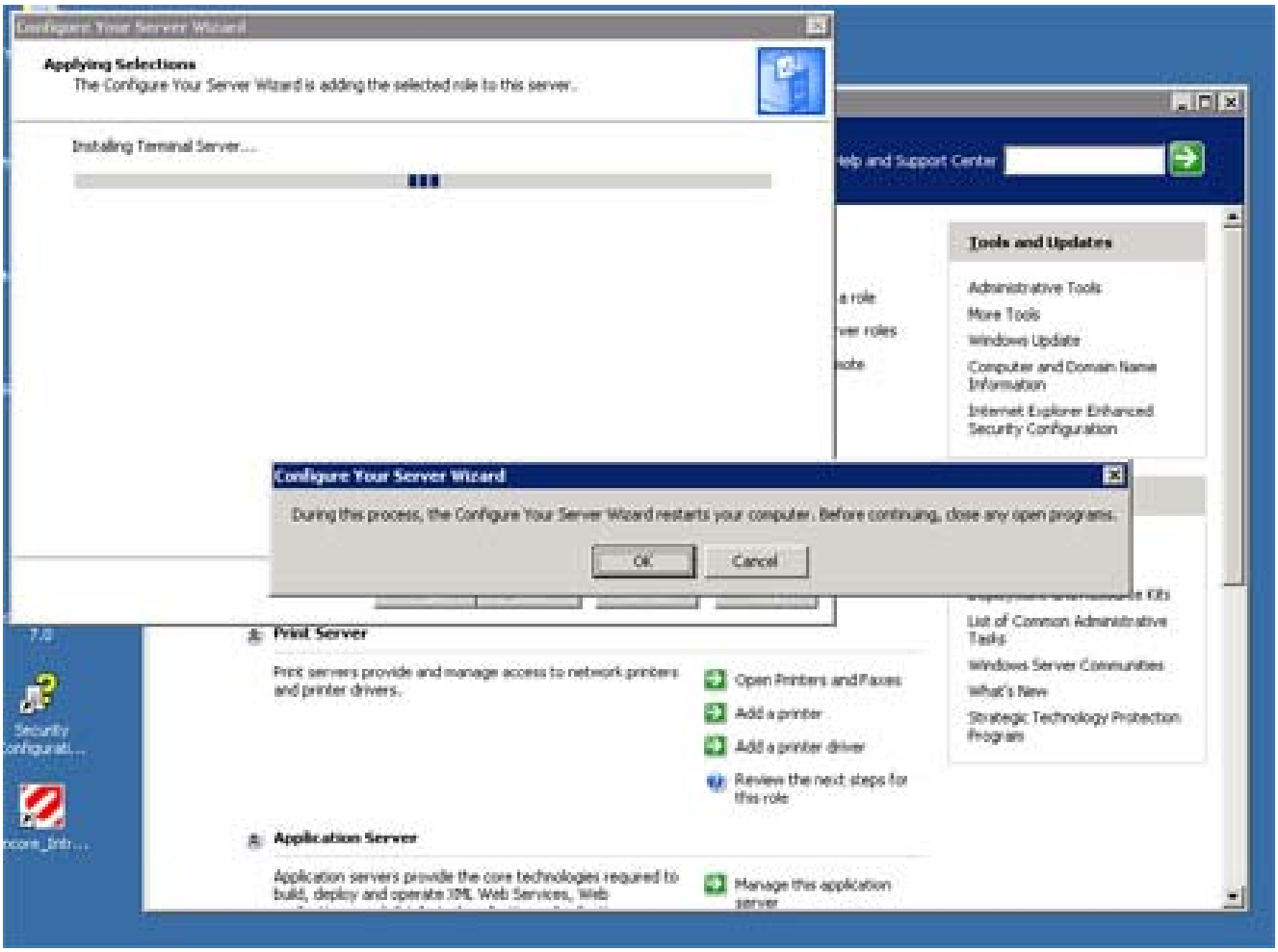
Configure Your Server Wizard
Applying Selections
The Configure Your Server Wizard is adding the selected role to this server.
Installing Terminal Server...
Configure Your Server Wizard
During this process, the Configure Your Server Wizard restarts your computer. Before continuing, close any open programs.
OK
Cancel
Tools and Updates
Administrative Tools
More Tools
Windows Update
Computer and Domain Name Information
Internet Explorer Enhanced Security Configuration
Print Server
Print servers provide and manage access to network printers and printer drivers.
Open Printers and Faxes
Add a printer
Add a printer driver
Review the next steps for this role
Application Server
Application servers provide the core technologies required to build, deploy and operate XML Web Services, Web
Manage this application server
List of Common Administrative Tasks
Windows Server Communities
What's New
Strategic Technology Protection Program

- The next window box warns you that your computer will restart. Click “OK” to accept and continue.

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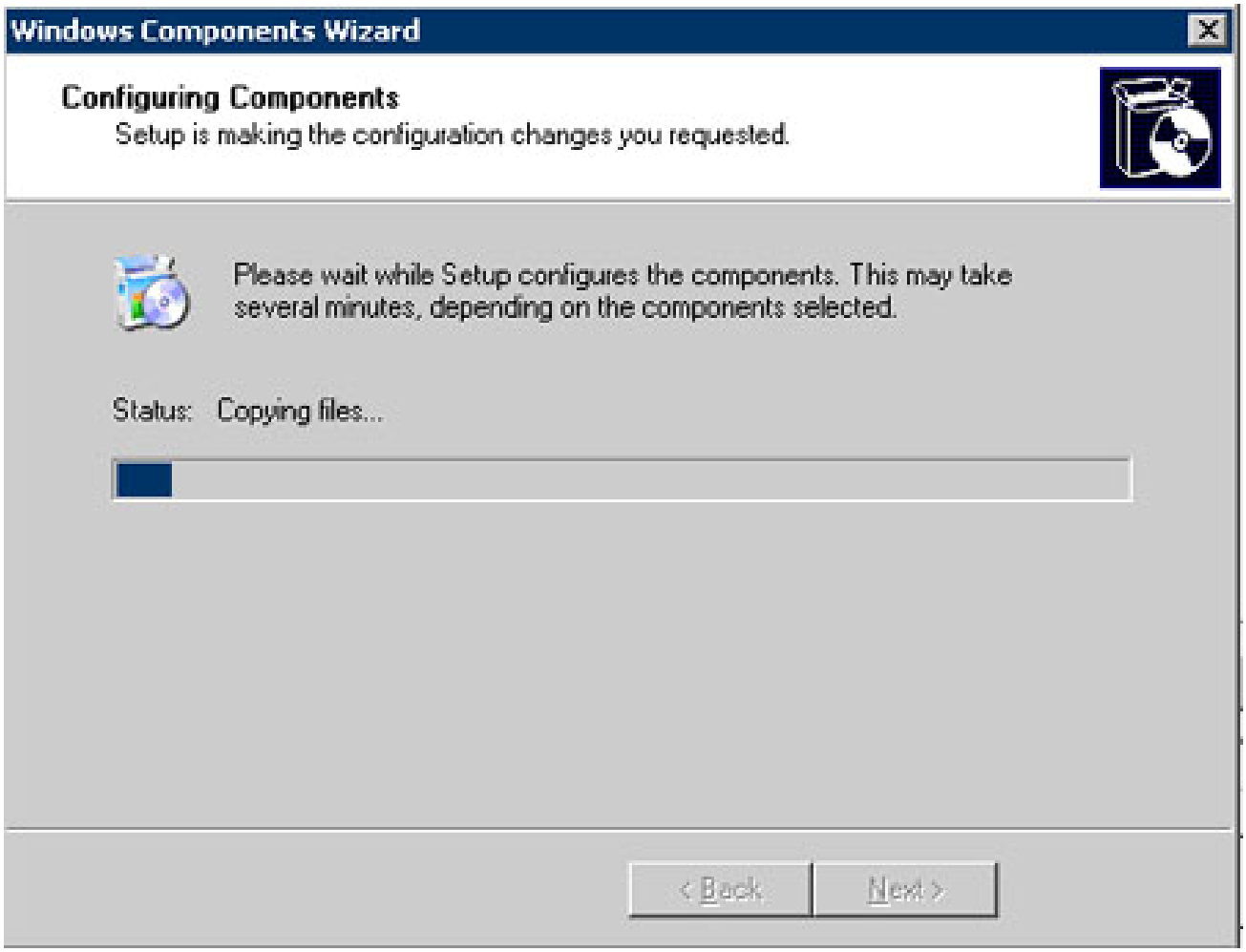
Windows Components Wizard
Configuring Components
Setup is making the configuration changes you requested.
Please wait while Setup configures the components. This may take several minutes, depending on the components selected.
Status: Copying files...
< Back
Next >

- The next window shows installation status

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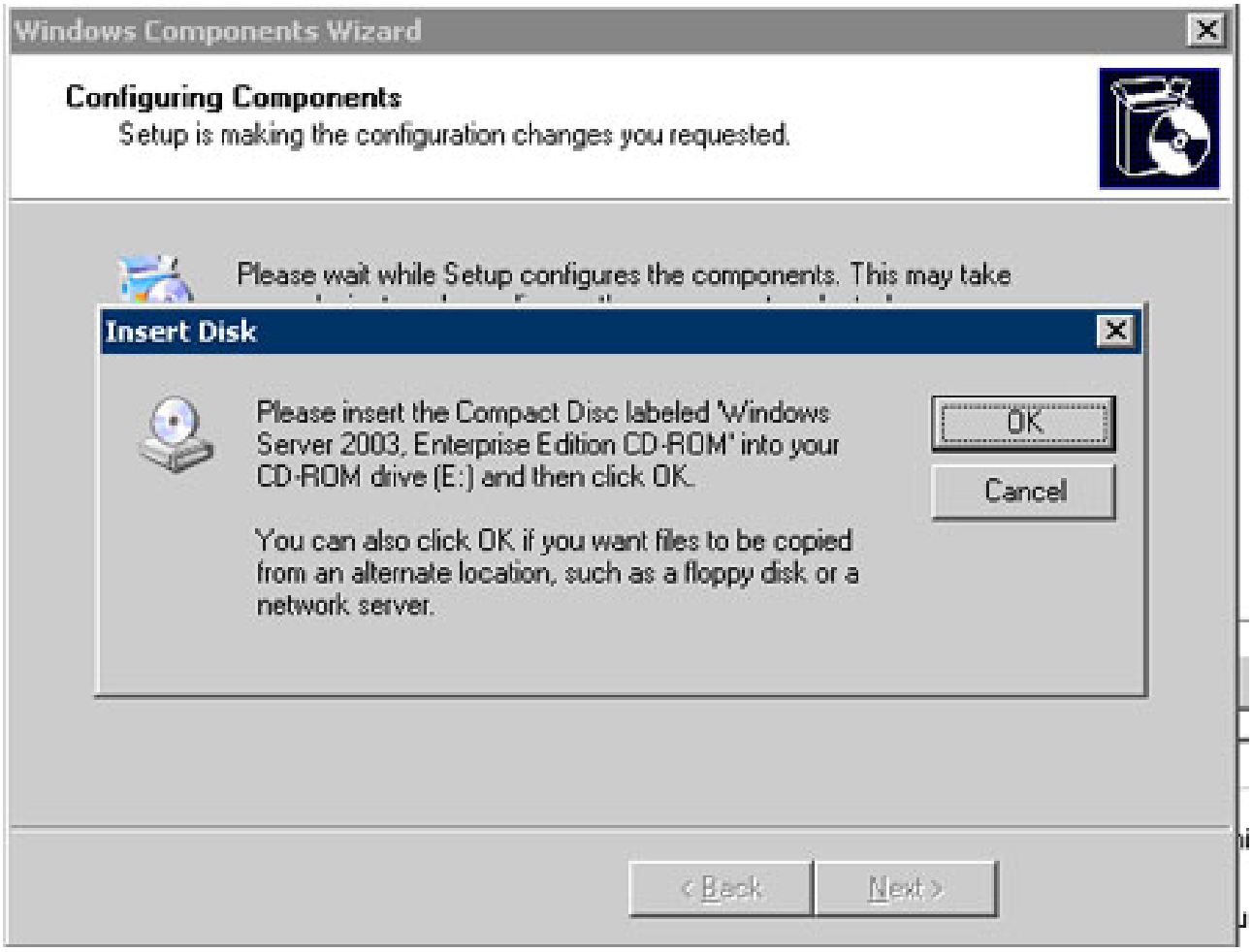
Windows Components Wizard
Configuring Components
Setup is making the configuration changes you requested.
Please wait while Setup configures the components. This may take
Insert Disk
Please insert the Compact Disc labeled 'Windows Server 2003, Enterprise Edition CD-ROM' into your CD-ROM drive (E:) and then click OK.
You can also click OK if you want files to be copied from an alternate location, such as a floppy disk or a network server.
OK
Cancel
< Back
Next >

- If you have not done so, please insert Windows 2003 Server CD into the CD-ROM drive then click “OK” to continue. When this process is done, the server will restart automatically.
- Remove the Windows 2003 CD while the server is re-starting to avoid booting from the CD
- After the installation is successful, you may now activate and add the Terminal Server license. Refer to your Windows 2003 Terminal Server license installation instruction.

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Configuration of user's access rights

By default, the built-in "Remote Desktop Users" group and its members have full access to the Terminal Server remotely. Initially, this group has no members; you have to add member manually. You may also want to create a new group instead of using the built-in group, add users to the group and manually assign access rights to the Terminal Server to this group.

To add users to the "Remote Desktop Users" group in Windows 2003 Server running Active Directory:

- Click "Start", go to "Administrative Tools", and click "Active Directory Users and Computers"
- Located at the left pane, click to select "Built-in"
- Located at the right hand pane, double click on "Remote Desktop Users"
- A Remote User Desktop Properties dialogue box will appear. Click on the "Members" tab then click "Add"
- At the "Select This Object Type" field, make sure it is on "Users, Group…etc"
- The "From Location" should have your domain name
- Place your cursor to the "Enter your object names to select" field and type the username of the target accounts for users of the Terminal Server. You can use the "Check Names" button to verify the user account you entered in the field.
- Once you have finished selecting and entering users, click OK twice.

To add a new group for Terminal Server users group:

- Click "Start", go to "Administrative Tools", and select "Active Directory Users and Computers"

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- From the left pane, click to select “Users”.
- From the Menu bar, click on “Action” select “New” then click “Group”
- Enter your new group name, then click “OK”
- Double click on the newly created group, click the “Member” tab, and click “Add”
- At the “Enter the subject name to select” field, enter account’s username. Click “OK” twice when done.
- To grant access to the Terminal Server to this group, do the following:
    - Click “Start”, go to “Administrative Tools”, and click on “Terminal Services Configuration”
    - Double click on “RDP-tcp” and then click on the “Permissions” tab
    - Click “Add”, then type the group’s name in the field and click “OK” twice

To add a local user account manually:

- Click “Start”, go to “Administrative Tools”, and click on “Terminal Services Configuration”
- Double click on “RDP-tcp” and click on the “Permissions” tab
- Click “Add”. Type the username to the Add field, then click “OK” twice

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Linux

(Warning: You must purchase genuine Linux user license to login to server)

ENTC-1000 uses XDMCP (X Display Manager Control Protocol) to access Linux servers. This section details how to enable XDMCP services on your Linux system.

Prerequisites

Before starting, make sure your network interface and X11 service (graphical user interface) are working properly on your Linux server. Refer to your Linux user manual on setting up network interface and X11 on your system.

Since Linux systems can vary depending on the distribution installed, the procedures listed below only serve as examples. You should refer to the user manual from your Linux distribution for detailed instructions. For general information on setting up XDMCP service, go to http://tldp.org and search for “XDMCP”.

Most of the following steps require “root” privileges. Contact your system administrator if you cannot log in as the “root” user.

CentOS 4.4 / Red Hat Enterprise Linux compatible systems (with Gnome Display Manager)

1) Configure your firewall to allow UDP port 177. For testing purposes, you can also disable the firewall entirely to avoid configuration mistakes.

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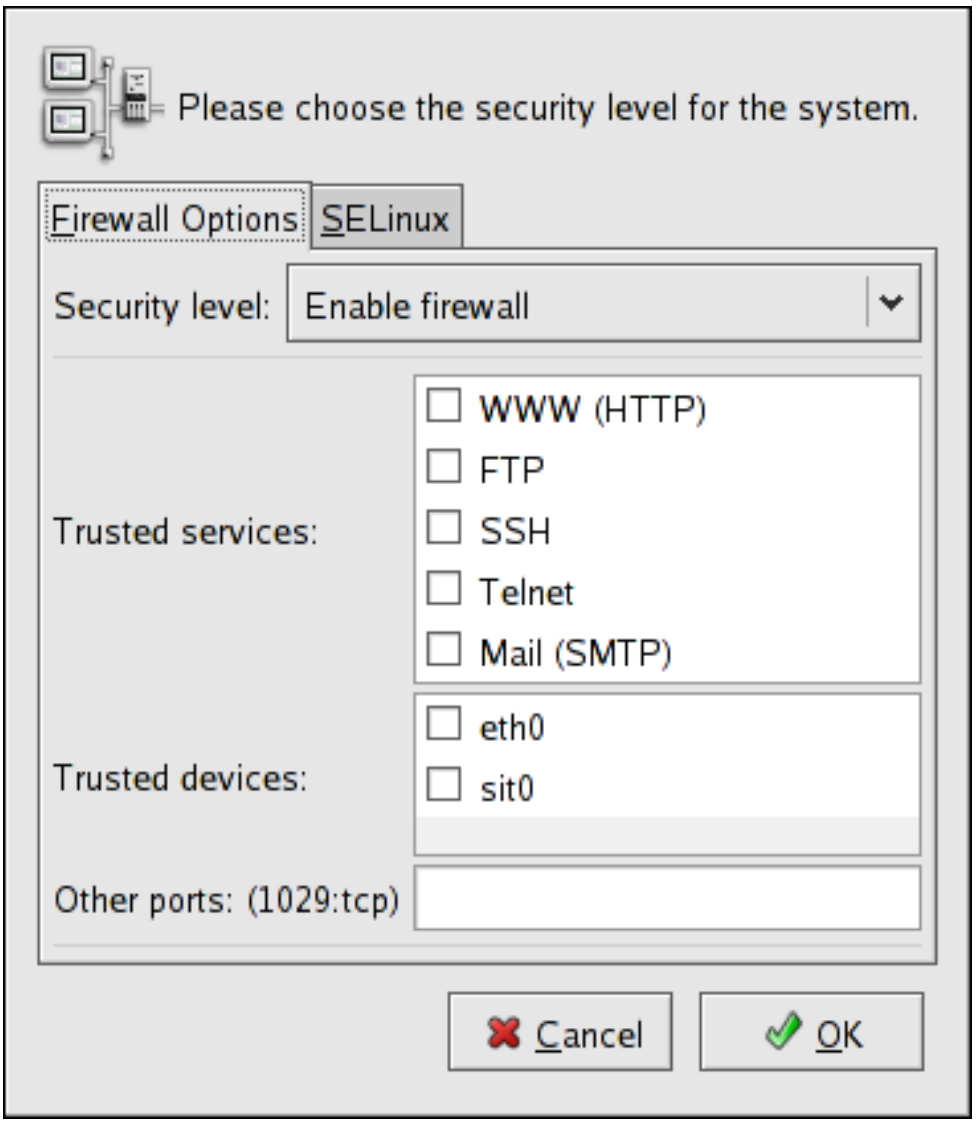
Start the *Security Level Configuration Tool* by selecting *Main Menu Button* (on the Panel) (System Settings (Security Level, or enter the command system-config-securitylevel from a command terminal. Add the following text to the “Other Ports” field (entries are separated by commas),

```
177:udp
```



2) Open and edit the GDM configuration file with a text editor. Normally, this file is located at `/etc/X11/gdm/gdm.conf`. Search for the following section,

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```
[xdmcp]
Enable = false
```

and change it to

```
[xdmcp]
Enable = true
```

Also, add the following line in the [xdmcp] section, or uncomment it if it has been commented out,

```
port = 177
```

Remember to save your changes.

3) Make sure your Linux server starts in graphical mode. If your system starts in text mode, you need to change the default "runlevel" to 5.

   Open and edit `/etc/inittab` file with a text editor. Look for a line similar to the following text,

```
id:5:initdefault:
```

   This line specifies the runlevel 5 as the default runlevel. If the line specifies a different runlevel on your system, modify it to runlevel 5 and save your changes.

4) Restart the GDM service. Please note that if you are using the graphical user interface on your Linux system to make the above configurations, restarting GDM will interrupt your session! Log out your session and return to the GDM log-in screen, then restart GDM by pressing Ctrl-Alt-Backspace keys at the same time.

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If you are logged in through a text terminal, you can restart GDM by entering the following command,

```
killall -1 gdm-binary
```


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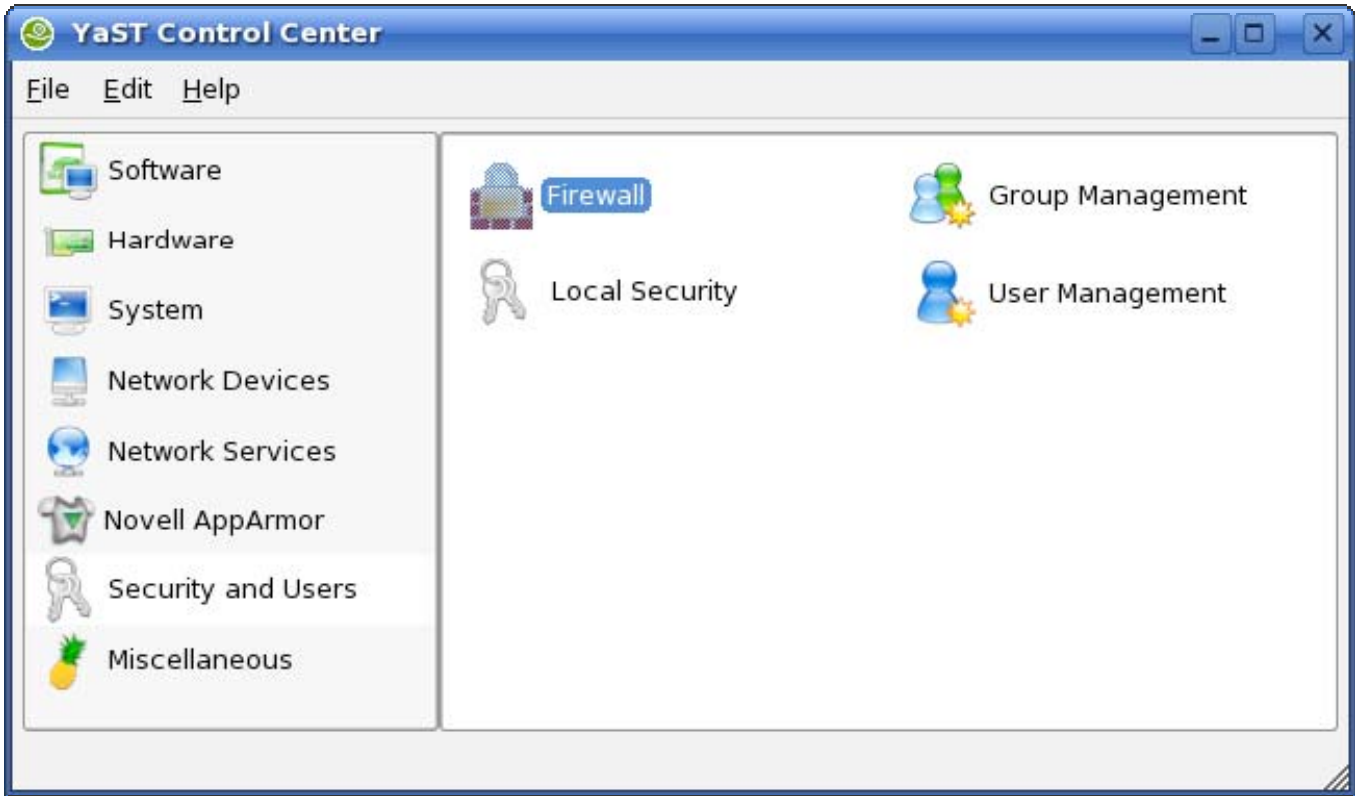
OpenSuSE 10.1 (with KDE Display Manager)

1) Configure your firewall to allow UDP port 177. For testing purposes, you can also disable the firewall entirely to avoid any configuration mistakes.



Start *YaST Firewall Configuration* by selecting *Main Menu Button* (on the panel) → *System* → *Yast (Control Center)*. Then go to *Security and Users* section and select *Firewall*.

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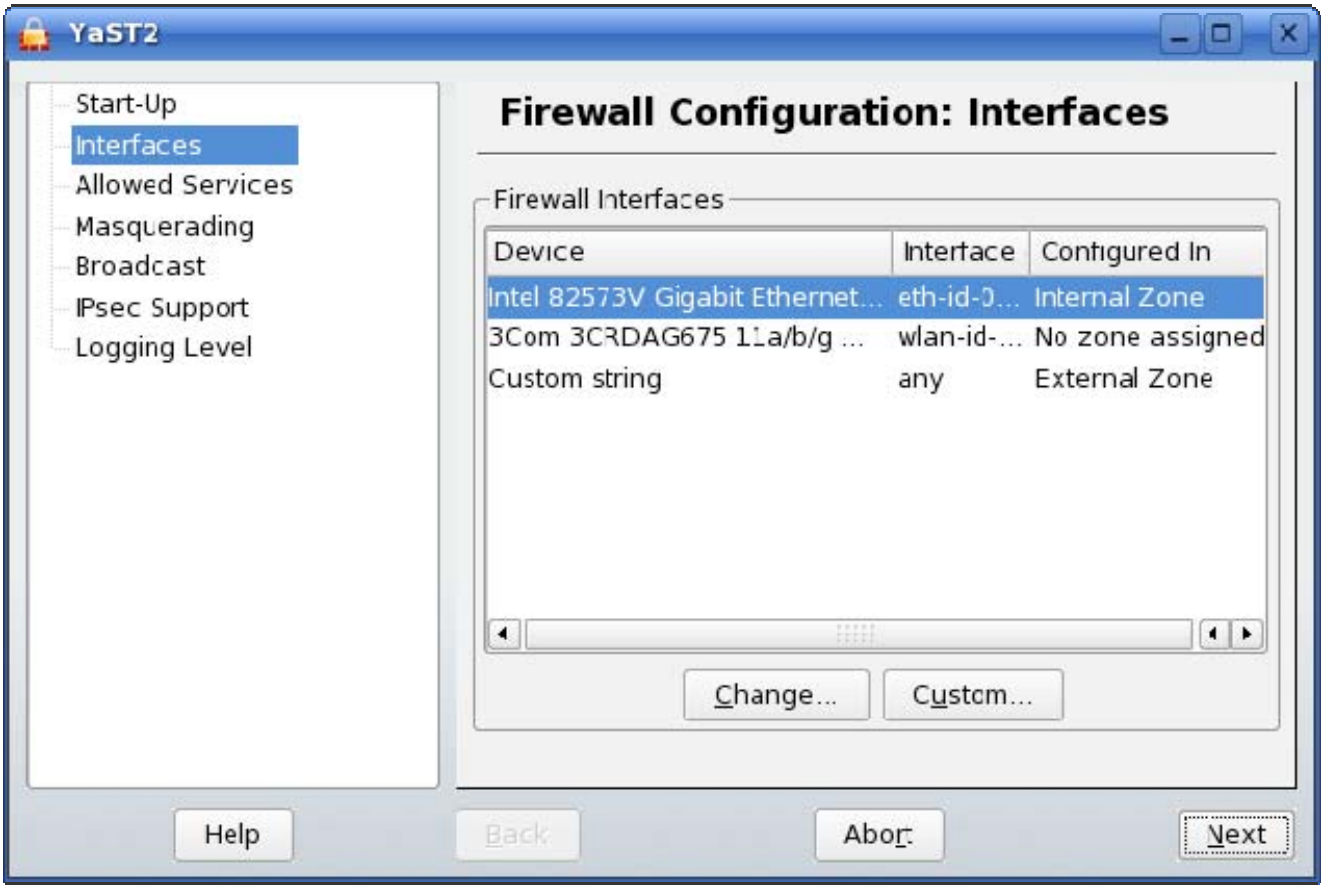

To allow connections from a particular interface, select “Interfaces” from the left panel and click on the network interface of your choice. Assign the appropriate network interface to “Internal Zone”, which leaves all ports open on this interface. If you must assign this network interface to “External Zone”, you need to modify the rules for “External Zone” to open UDP port 177. Please refer to your SuSE manual for details.

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2) Open and edit `/etc/sysconfig/displaymanager` file with a text editor. Look for lines similar to the following text,

```
# Allow remote access to your display manager (kdm
only for now)
#
DISPLAYMANAGER_REMOTE_ACCESS=”yes”
```

The last line specifies whether KDM should allow remote connections. If this line says “no” on your system, modify it to “yes” and save your changes.

3) Open and edit `/etc/opt/kde3/share/config/kdm/kdmrc` file with a text editor. Look for lines similar to the following text,

```
[Xdmcp]
# Whether KDM should listen to XDMCP requests.
Default is true.
Enable=true
# The UDP port KDM should listen on for XDMCP
requests. Don't change the 177.
Port=177
```

These lines specify that KDM should enable XDMCP service. If the lines say otherwise on your system, modify them and save your changes.

4) Make sure your Linux server starts in graphical mode. If your system starts in text mode, you need to change the default “runlevel” to 5.

Open and edit `/etc/inittab` file with a text editor. Look for a line similar to the following text,

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```
id:5:initdefault:
```

This line specifies the runlevel 5 as the default runlevel. If the line specifies a different runlevel on your system, modify it to runlevel 5 and save your changes.

5) Restart the KDM service. Please note that if you are using the graphical user interface on your Linux system to make the above configurations, restarting KDM will interrupt your session! Log out your session and return to the KDM log-in screen, then restart KDM by pressing the Ctrl-Alt-Backspace keys at the same time.

   If you are logged in through a text terminal, you can restart KDM by entering the following command,

```
service xdm restart
```


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Hardware Installation

Before any attempt of hardware installation, please check the content of the box (see “Package Contents”)

1. Take the ENTC-1000, and power adapter out of the box.

(color may vary)

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2. Connect the following cables appropriately
    a. Connect one RJ-45 cable and from the local area network to the ENTC-1000 (or use one that is already in place)

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b. Connect VGA cable from the CRT/LCD display to the ENTC-1000 (Make sure that the power and signal-cables to the CRT/LCD display are properly connected)

(color may vary)

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c. Connect USB keyboard and mouse to ENTC-1000 USB ports.
(NOTE: this device will only recognize a USB keyboard and a USB mouse. It will not recognize any other USB device.)

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d. Connect a power adapter from any power outlet to the ENTC-1000.

(color may vary)

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e. (Optional) Connect audio cable from any speaker or headphone to the ENTC-1000

(color may vary)

f. You have now finished hardware installation

Software Installation

Currently there is no software installation required for the ENTC-1000. However, from time-to-time, a firmware update may be required. Please see “Status and Maintenance” section for proper firmware update procedure.

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How to use the ENTC-1000

Once the network / terminal sever is properly configured and the device is properly installed, the device is ready for use. Please verify that all installation (see “Installation” section) is complete prior to first-time use. Please follow below mentioned procedures.

1. Turn on display monitor and the ENTC-1000. Power button is located on the front panel of the ENTC-1000.

(color may vary)

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2. Wait for several second until device boots to logo screen (see below).

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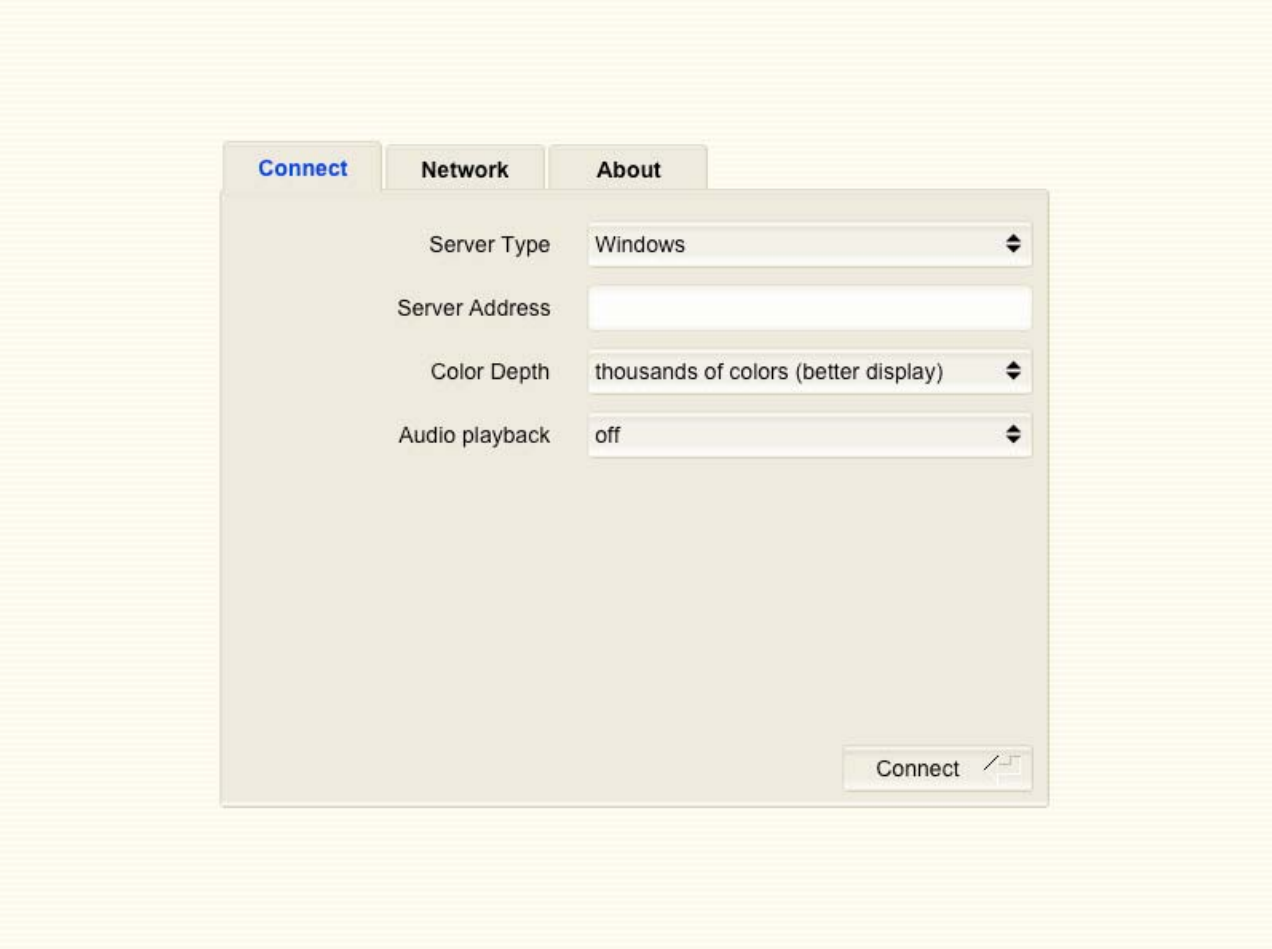
3. Device will now enter initial dialog. There are 3 tabs on the dialog. Each serves a different purpose.
   First tab is the “connection” dialog. The dialog will display a different input parameter depending on which protocol you want to use.



   The above dialog is displayed when the Windows server, which uses “RDP”, Remote Desktop Protocol, is chosen. User can specify the following parameters.
   Server Address, the IP address or name of the server.
   Color Depth, the lower the color depth, the better the response time; the higher the color depth, the shaper the display.
   Audio Playback audio playback can be turned off, controlled

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locally, or left to remote server setting.

If user chooses Unix/Linux server, which supports X-window protocol, the above dialog will display. User must specify the following parameter:

Server Address the IP address or the name of the server

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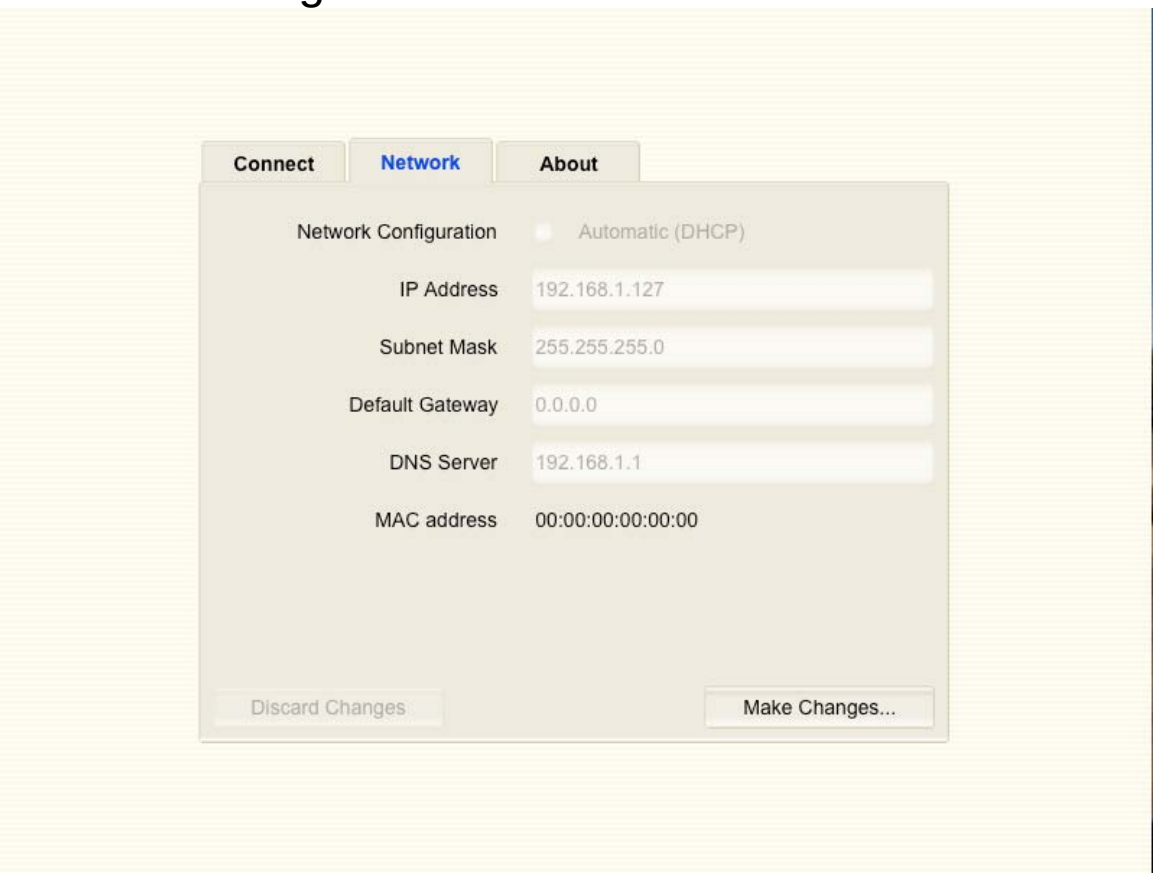
4. The second tab is the “Network” tab. Use this tab to configure basic IP setting of ENTC-1000.



Initially, the dialog displays the current network settings. Click the “Make Changes” button to modify these settings. When you are done, click “Apply Changes” to make your changes effective, or “Discard Changes” to cancel.
The user can specify whether DHCP should be used to automatically acquire an IP address. If DHCP is not used, user must manually enter IP address, subnet mask, default gateway, and DNS server address. Please consult network administrator in case manual entering is required.

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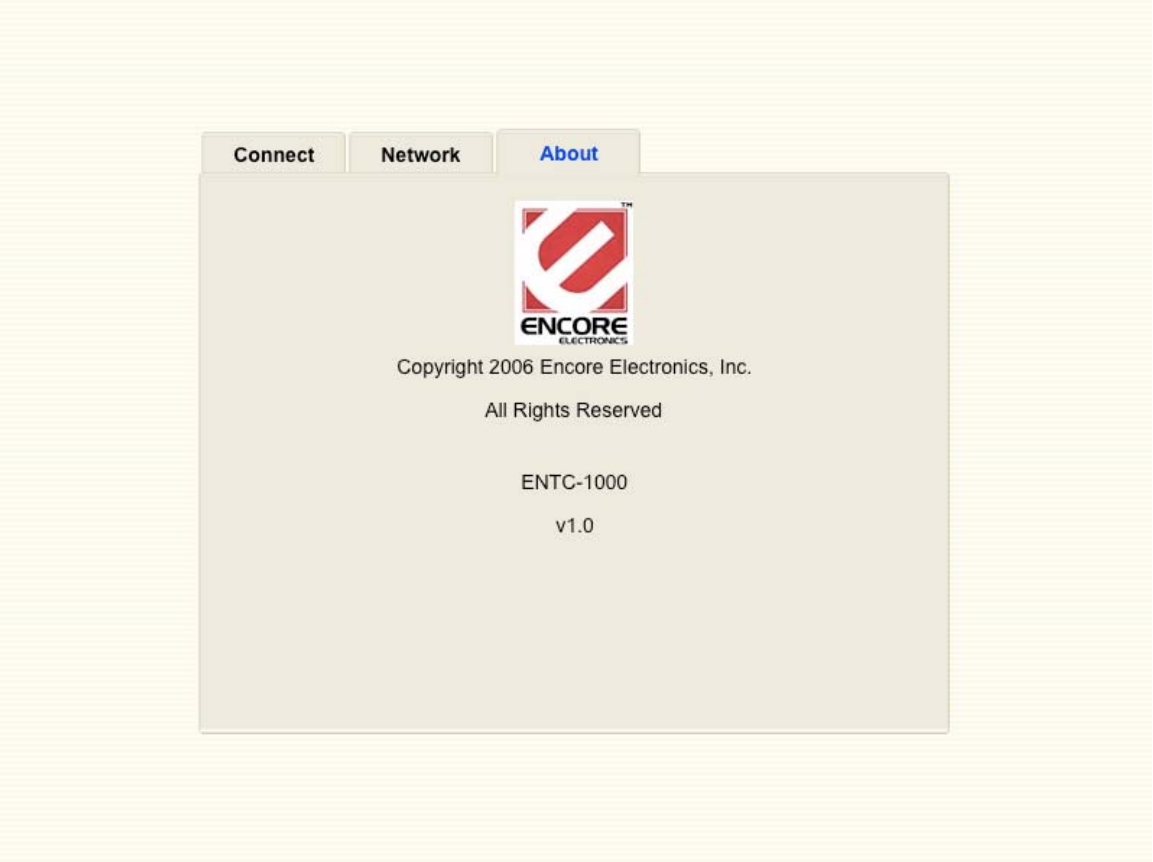
5. The third tab is the “About” tab. It should display manufacturer, copyright, model ID, and firmware information.



6. Go back to the “Connection” dialog. Enter server address in “Server Address” field. When successful, user will be connected to server. Normally, the user will be prompted for login and password. After logging into the server, user can operate the ENTC-1000 as though he or she is directly in front of server.

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Status and Maintenance

This product can be administered either remotely or locally via a web management interface. To administer, simply bring up a web browser and type in the IP address of the device.

A webpage (see below) should display if the IP address of the device is entered correctly. Use this page to check the status.
Operation status shows protocol used to connect to server and the name of the server.
Network status shows the basic network setting of the device. These settings include IP address, Subnet mask, Default gateway, DNS server, MAC address, etc.
System status shows memory usage as well as up time.

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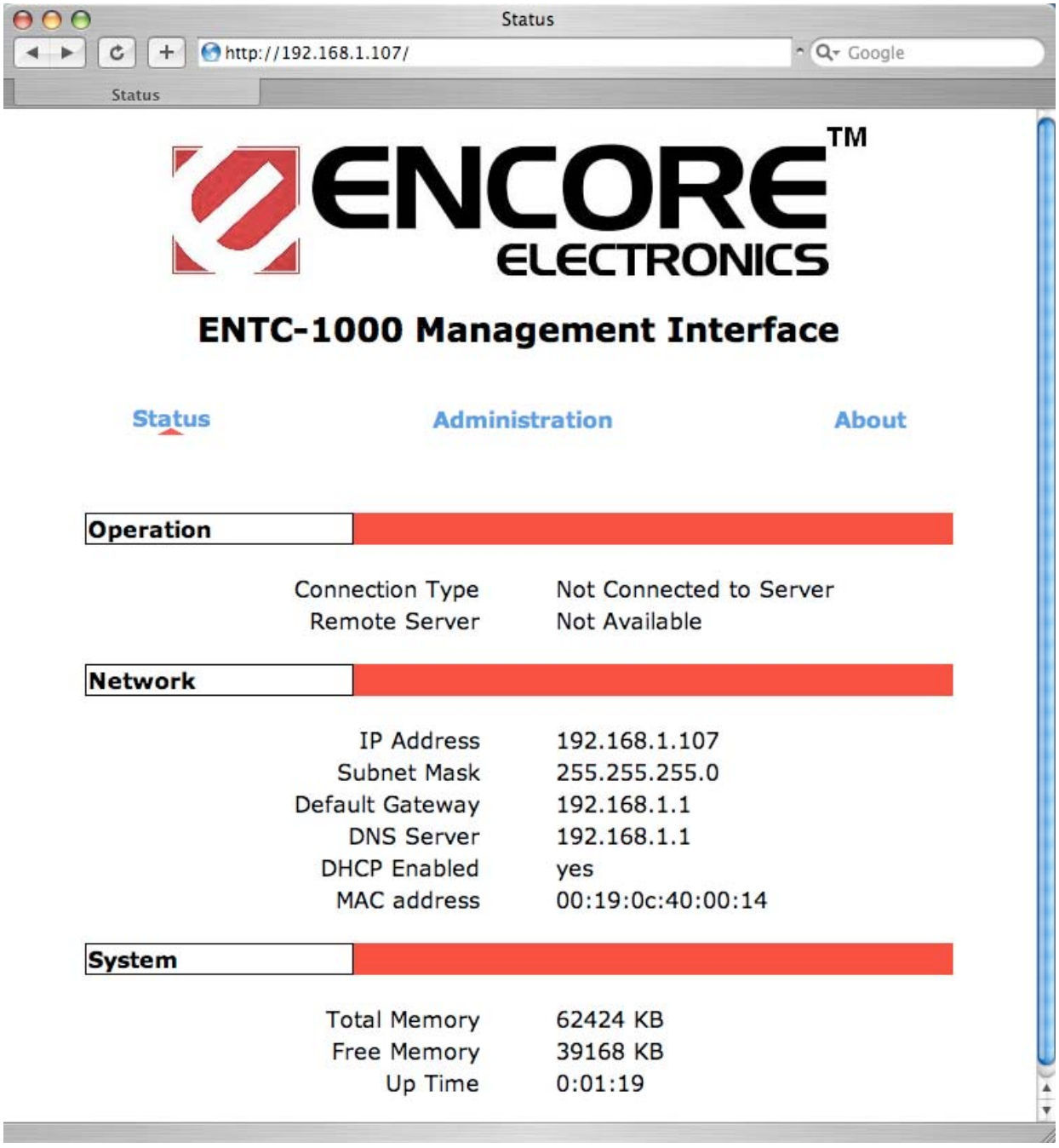

Click on “Administration” to get to administration page. Before accessing administration page, one must enter administrative password. Default username is set to “admin” and default password is set to “admin”.

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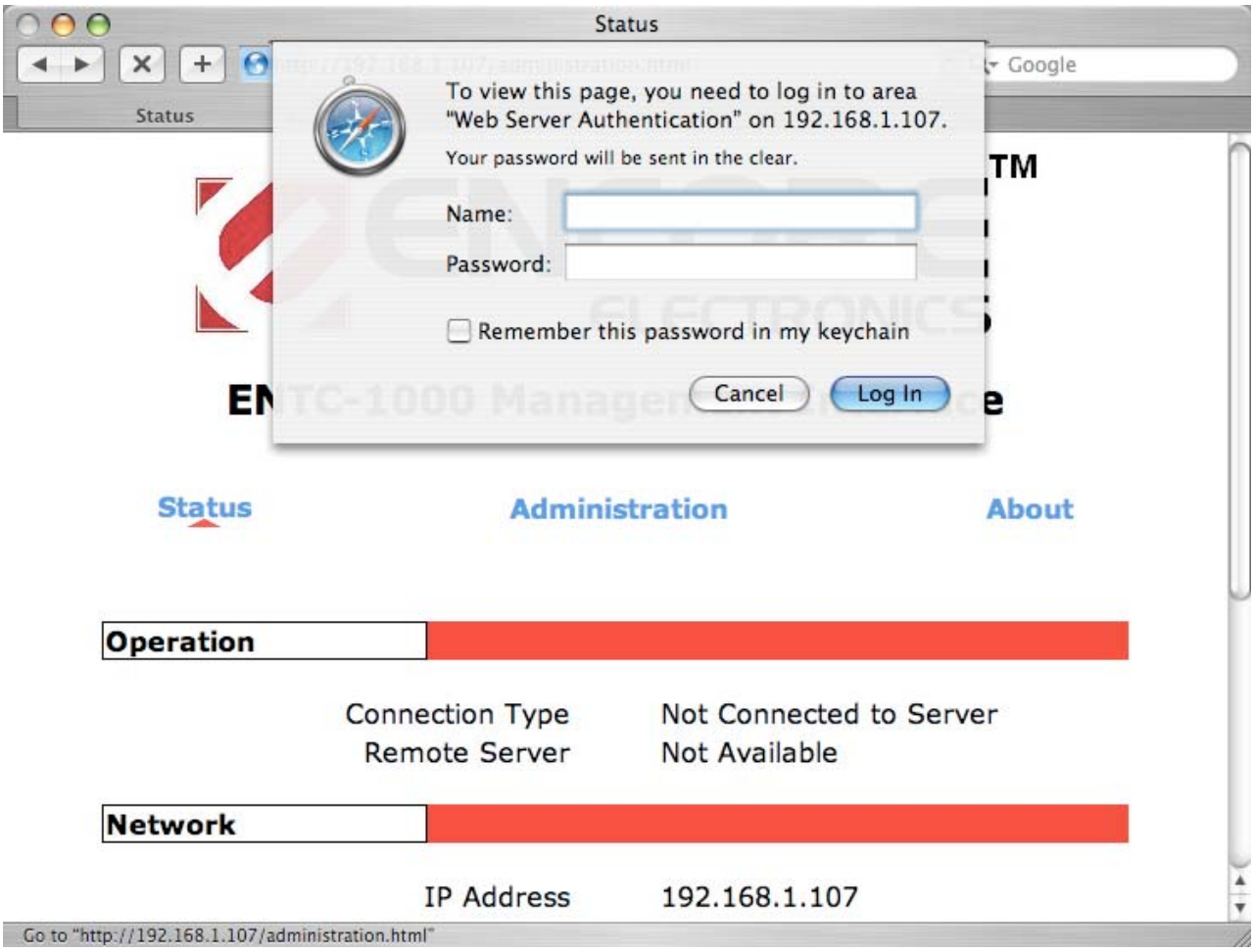

After username and password are correctly entered, one will see the administrative page. On this page, the following administrative tasks can be performed.

- Administrator can reset username and password when current password is correctly entered.
- Firmware can be uploaded/updated using HTTP or TFTP; to use HTTP upload, hit “choose file” button to select the correct binary file and then use “upgrade now” button to execute upgrade. To use TFTP upload, enter correct TFTP server address and file name and then hit “upgrade via TFTP” button to execute upgrade.

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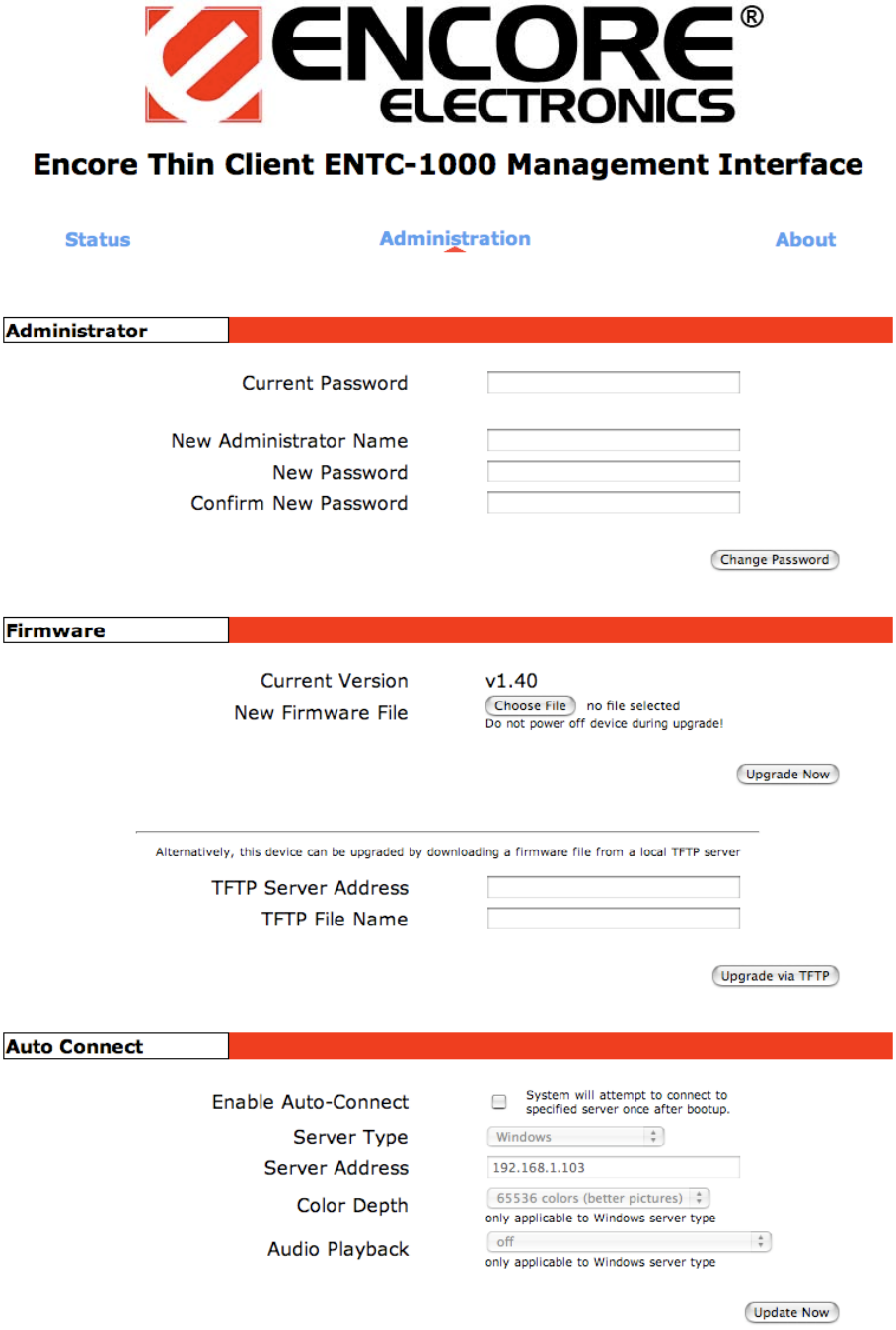
- Auto-connect feature can be enabled/disabled at this page. If auto-connect is enabled, device will attempt to connect to pre-specified server once. Parameter for server configuration is similar to that after the bootup screen.



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F.A.Q / Technical Support

For further information, please use information from Encore's website (www.encore-usa.com) to contact technical support.

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